

Emergency Medical Services Assessment: A Systematic Approach to Improving Performance

Washington, DC

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What is an EMS System?

- A 'coordinated system' designed to provide out-of-hospital emergency medical care for the sick and injured.

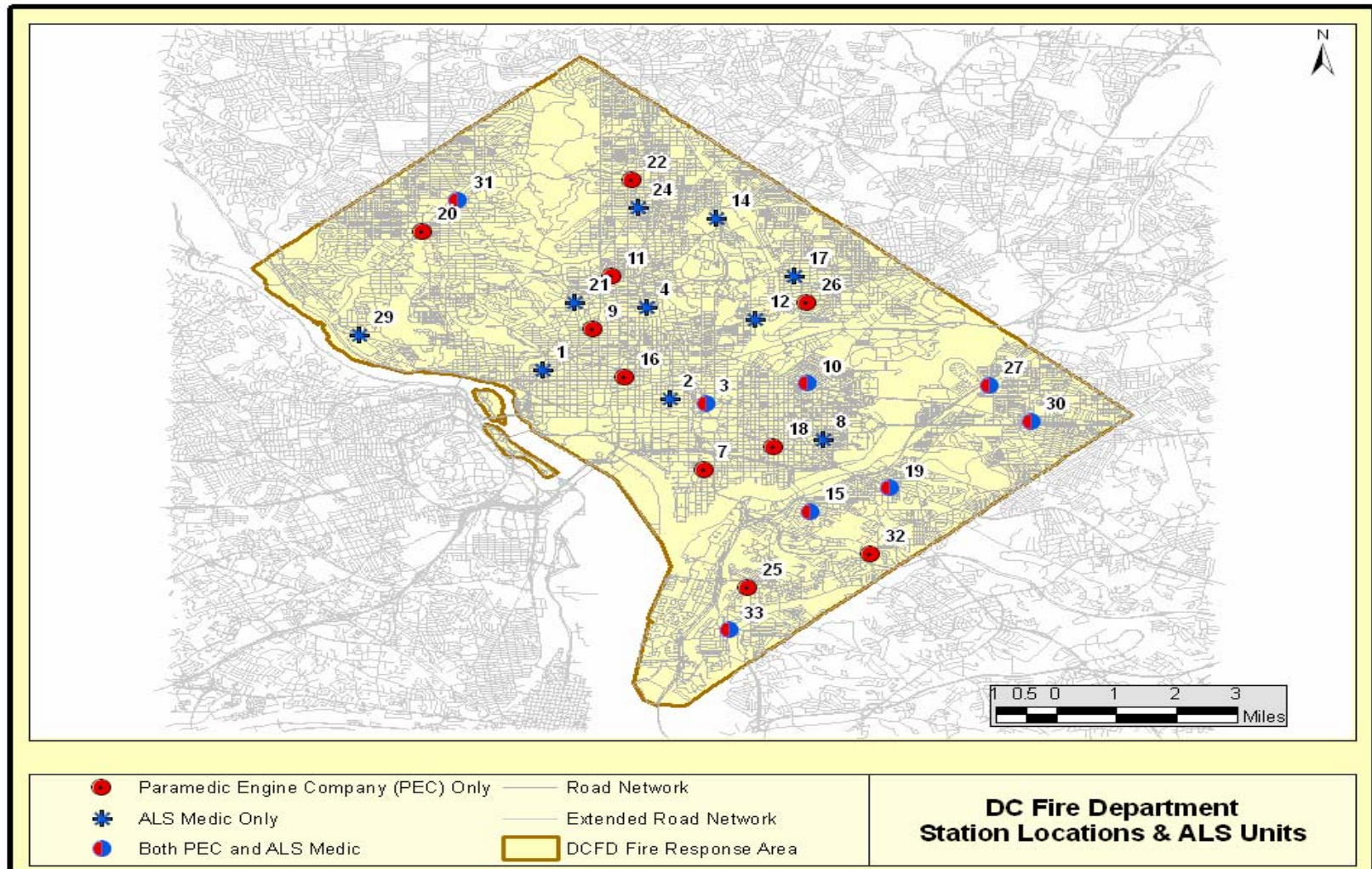
EMS System Components



- **Detection**
- **Reporting**
- *Response*
- *On Scene Care*
- *Care in Transit*
- **Transfer to Definitive Care**

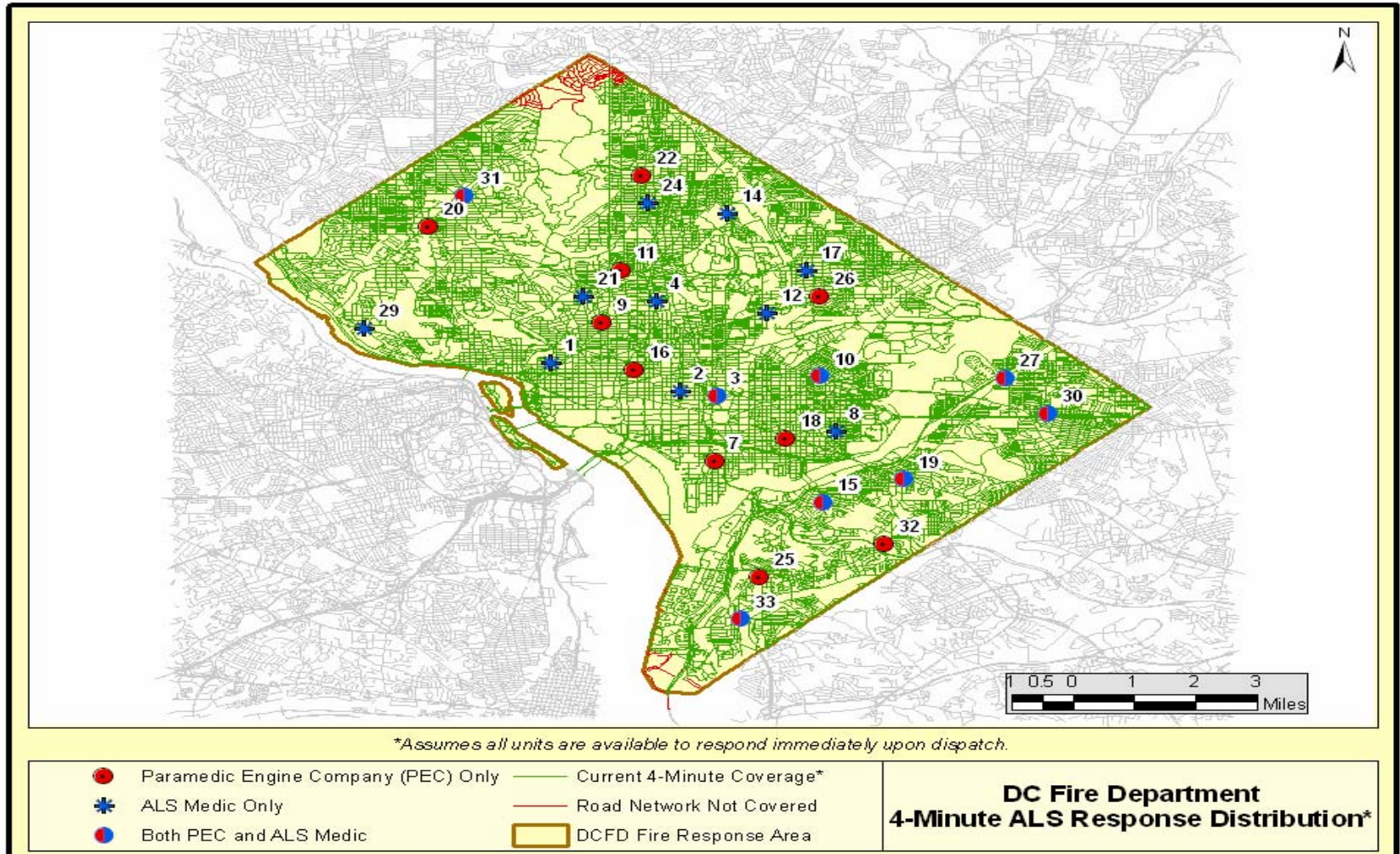
Washington DC Fire & EMS

■ Distribution



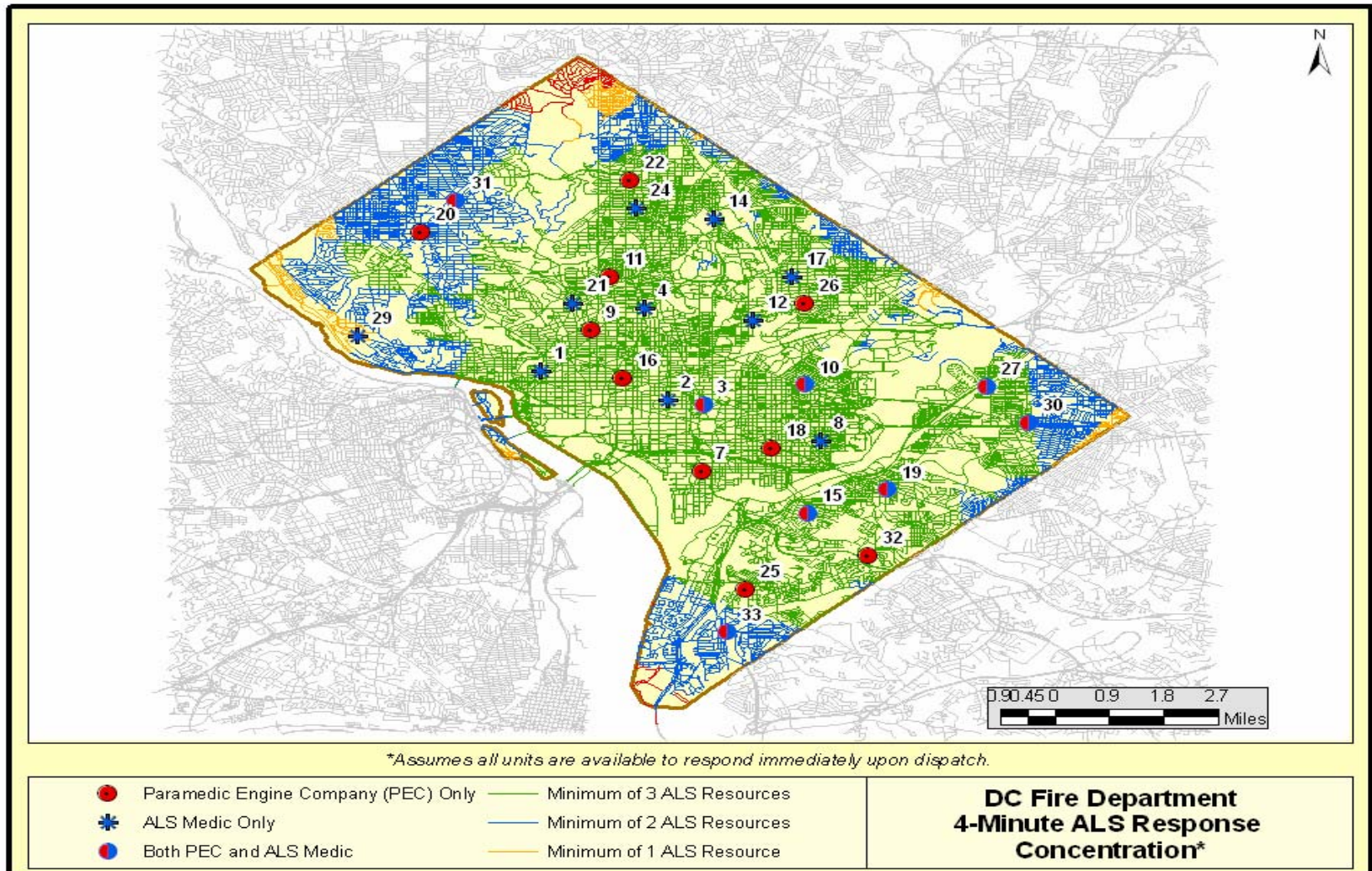
Washington DC Fire & EMS

■ Distribution



Washington DC Fire & EMS

■ Depth of Coverage



Washington DC Fire & EMS: Response

- **Call Volume Depletion of ALS Resources**
 - **Total EMS Unit Responses – 117,380 (2006)**
 - BLS Transport Responses – 81,104 / 41,998 transports (2006)
 - ALS Transport Responses – 54,465 / 33,188 transports (2006)
 - Paramedic Engine Company Responses – 32,977 (2006)
- **Appropriate Utilization, Distribution and “Depth” of Resources Required To Handle This Call Volume**
- **Travel Time Affected By Availability Of Resources and Travel Distances**
 - **Distribution**
 - **Depth of Coverage**

Washington DC Fire & EMS: Response

- **Critical EMS En Route to On Scene Interval (Travel Time) – 02:54 (2007 YTD average)***
- **Recommended Travel Time Goal – 04:00, 90% of the time (NFPA Standard 1710 Section 4.1.2.1.1)**
- ***First Opportunity for Patient Assessment and Delivery of Critical Interventions**

*(*As reported by DCFD in Document “2004_07_FY History_YTD, FY2006 History”)*

Washington DC Fire & EMS:

Reporting

Dispatch Phase

- Notification (Call) to “Queue” Interval – 01:32 (2007 YTD average)*
- “Queue” to Dispatch Interval - 00:52 (2007 YTD average)*
- TOTAL TIME- Notification to Dispatch Interval – 02:24 (2007 YTD **average**)*
- Typical Call Processing Target – Under 01:00, 90% of the time (*NFPA Standard 1221*)

(*As reported by DCFD in Document “2004_07_FY History_YTD, FY2006 History”)

Washington DC Fire & EMS: Response “Turnout” Phase

- EMS Dispatch to En Route Interval (Turnout/Chute Time) – 01:02 (2007 YTD **average**)
- Typical Turnout/Chute Time Target – Under 01:00, 90% of the time (*NFPA Standard 1710 Section 4.1.2.1.1*)

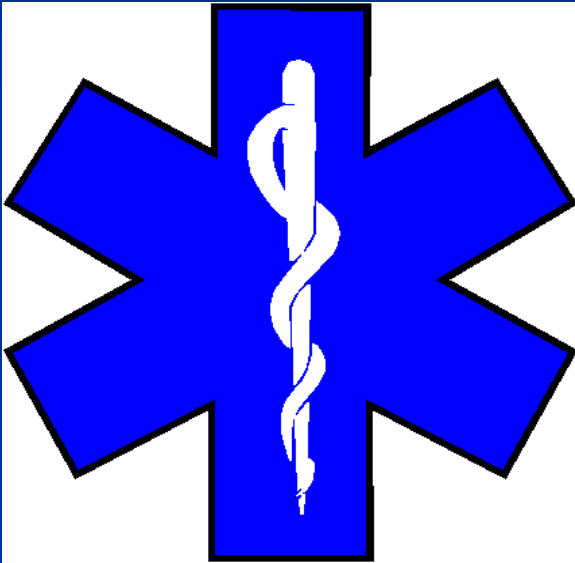
(*As reported by DCFD in Document “2004_07_FY History_YTD, FY2006 History”)

Washington DC Fire & EMS: Transfer to Definitive care

- Hospital Emergency Room Delays May Deplete Transport Resources
- DC Area Hospital “Drop Times” Contribute To Overall System Response Times
 - **82%** of all “Drop Times” Reported in Feb. 2007 were > 30 minutes*
 - Delays Transport Unit Return To Service
 - Requires FD Initial Responders To Stay On Scene Longer, Delaying Response Unit Return To Service

*(*As reported by DCFD in Document “Hospital Drop Time Report, Feb. 2007”)*

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Emergency Response System Assessment: Comparable Jurisdictions

Washington, DC
compared to
Memphis, TN

Gary Ludwig, MS, EMT-P
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Memphis, TN

Washington DC and Memphis

- Similar Size Resident Populations
- Similar Poverty Levels
- Similar Sized Fire Departments
- Similar Approaches to EMS Delivery
- Over 100,000 EMS Responses per year



The Memphis Problem

- Leadership Did Not Value the EMS Mission for over 10 Years.
- Was Not Medically Driven.
- Improper Levels of Supervision Over EMS.
- Poor Quality Improvement Program.
- Training Had Been Eliminated.
- 3 – 5 Citizen Complaints Every Week.
- Seven Wrongful Death Lawsuits in Short Period Of Time.
- Virtually Two Separate Departments Under the Same Budget.

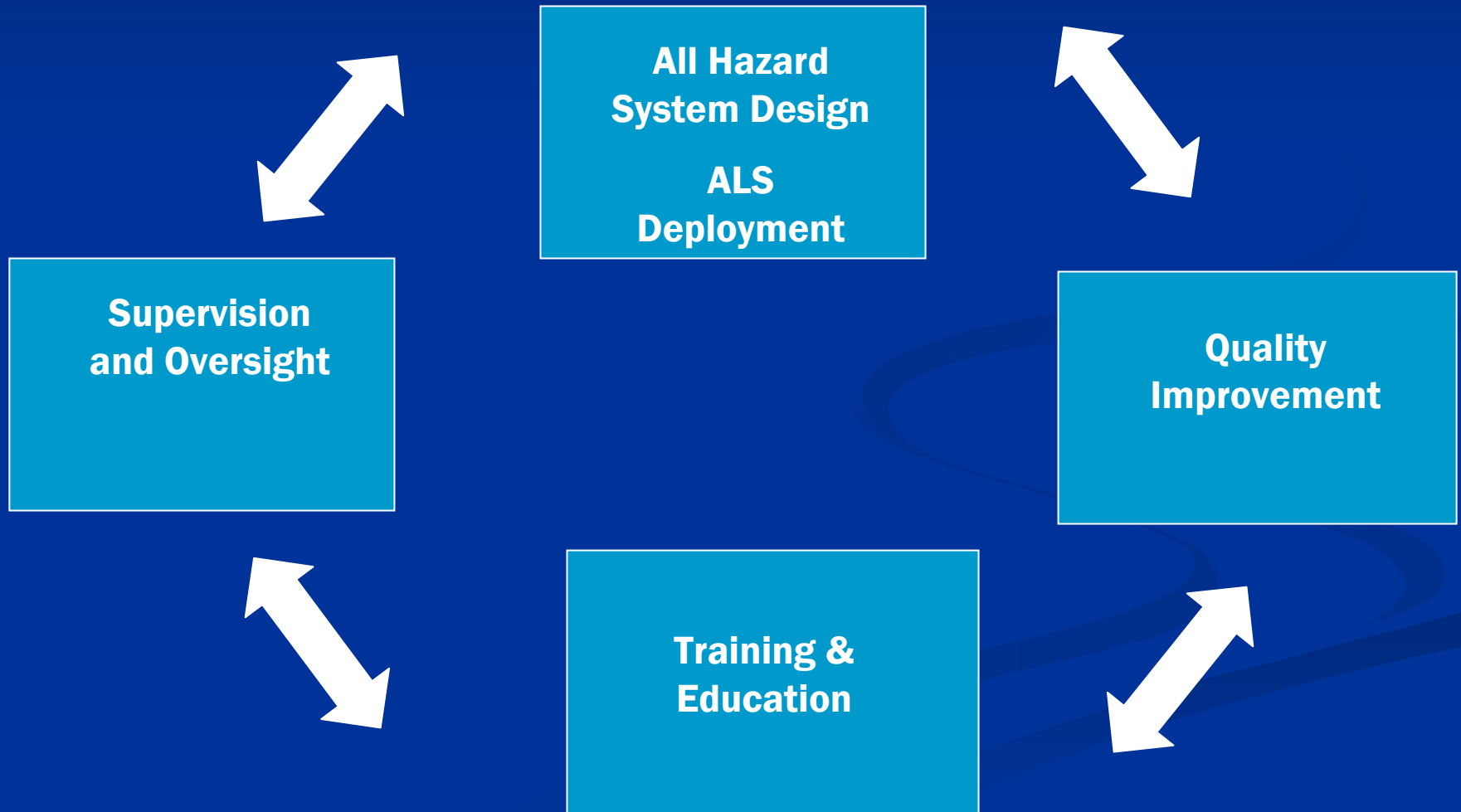


Today in Memphis

- All Hazards Emergency Response System
- Leadership Values EMS Mission
- Extensive Field Medical Supervision
- Extensive Continuing Education Programs
- Revamped QI Program addresses system and individual performance problems.
- Citizen Complaints – Averages 1 Every 2 Months
- No Lawsuits in last 18 months
- True Integration of Fire and EMS System
- Average Response Time for First Arriving Medical Provider is under 4 minutes.
- Innovative Programs:
 - Big Brother/Sister Recruit Training
 - 911 Alternatives



Washington DC Current EMS System can be a Premier System



EMS Is A Systems Approach

**Changing the Name on the Side
of the Ambulance Will Not Make
DC a Better EMS System**

